Background Patient selection for medication review is a sensitive matter. While each drug-related problem can potentially be of great significance, resources do not permit a comprehensive Medication Review (MR) in every single patient. A previous study found that the number of drugs in use correlates best to the outcomes of a MR.

Purpose The study aim was to compare the outcomes of patient selection for MR by general physicians (GPs) to patient selection based on the number of prescribed drugs. Results might give an impression of an ideal and realistic patient selection scenario in ambulatory care.

Method GPs, who took part in the WestGem study were approached on patient selection of former study participants. Guided interviews were held for each individual patient. Data was coded by two different researchers. Baseline characteristics between patients, who were selected for medication review by the GPs and those not selected, were examined using chi-squared test in distributions. A T-test for unpaired samples was conducted to examine differences of means between different groups. Selected patients by the GP were compared to a list of patients, who carried a major benefit from the previous MRs. Specificity and sensitivity was calculated.

Findings Interviews were held with six GPs (50 %) of the WestGem study. They would have chosen 45 former study patients (57.7 %), for whom they expected to have a benefit from the MR. Comparison to the list of patients revealed that 24 of these patients had an actual greater benefit from a MR. GPs hence identified 61.5 % of the eligible patients. Specificity of identifying patients without major benefit from a MR was 46 %. Selection of patients with a major benefit from the MR based on the number of drugs in contrast showed a specificity of 0.08 for 6, of 0.19 for 7, of 0.47 for 8, of 0.67 for 9 and of 0.78 for 10 or more prescribed drugs per patient. GPs mentioned certain diseases, polypharmacy, multimorbidity and individual patient criteria (like adherence, language barrier and education) as influencing aspects.

Conclusion From a statistical perspective, patients with 9 or more drugs in use are more likely to experience a major benefit from a MR, compared to patients selected by GPs. This approach however would exclude patients with certain needs from a MR. A wise way in practice could be to consider polypharmacy as well as certain needs for patient selection for a MR.